

STATEMENT OF
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HEARING ON ENERGY SUPPLY

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Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today to discuss the near-term outlook for energy markets in the United States.

The Energy Information Administration (EIA) is an autonomous statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Department of Energy, other government agencies, the U.S. Congress and the public. We do not take positions on policy issues, but we do produce data and analysis reports that are meant to help policy makers determine energy policy. Because we have an element of statutory independence with respect to the analyses that we publish, our views are strictly those of EIA. We do not speak for the Department, nor for any particular point of view with respect to energy policy, and our views should not be construed as representing those of the Department or the Administration. However, EIA's baseline projections on energy trends are widely used by government agencies, the private sector, and academia for their own energy analyses.

Each month, EIA updates its *Short-Term Energy Outlook*, which contains quarterly projections through the next two calendar years, taking into account the latest developments in energy markets. The projections in this testimony are from the *Short-Term Energy Outlook April 2001*. These projections are not meant to be exact predictions of the future, but represent a likely energy future, given technological and demographic trends, current laws and regulations, and consumer behavior as derived from known data. EIA recognizes that projections of energy markets are highly uncertain, subject to many random events that cannot be foreseen, such as weather, political disruptions, strikes, etc. Many of these uncertainties are explored through the generation of alternative cases.

The Outlook to 2002

Energy markets in the United States today are characterized by high prices for both petroleum and natural gas, due in large part to tight supplies of both fuels. Reductions in oil production by OPEC and several non-OPEC petroleum-exporting nations have contributed to low oil stocks. Tight natural gas supplies are also contributing to high electricity prices in California, along with high electricity demand relative to capacity, high generation outage rates, and low hydroelectric resources.

Crude Oil. At its March 17 meeting, OPEC members agreed to reduce production quotas an additional 1 million barrels per day effective April 1, 2001. This follows an earlier production quota cut of 1.5 million barrels per day announced in January that was effective February 1, 2001. OPEC has scheduled an extraordinary meeting for June 5-6, 2001 to review their production quotas. The monthly average U.S. imported crude oil price for March 2001 is estimated to be about \$23.88 per barrel.

The average price of imported oil paid by U.S. refiners is currently projected in our base case to remain in the mid- to upper- \$20's through 2002 (Figure 1). (In terms of the more commonly quoted price of West Texas Intermediate (WTI) crude oil, which is generally about \$3 per barrel

above the imported average, the expected range in the upper-\$20's to lower-\$30's.) There is considerable uncertainty about this and average imported prices could again go above \$30 per barrel. EIA's analysis indicates that the net effect of the new quotas will be sufficient to support OPEC's desired price range even though the quotas may be partially offset by continued overproduction. EIA expects that oil stocks, particularly in the United States, will continue to be tight compared to normal levels and will provide enough support to prevent prices from falling significantly (Figure 2).

Motor Gasoline. With crude oil prices remaining at relatively high levels, combined with lower-than-normal stock levels going into the driving season, gasoline prices are expected to be high again this summer. National average gasoline prices increased substantially during the month of April, rising from \$1.44 per gallon on April 2 to \$1.62 per gallon on April 23. While prices may moderate in the future as gasoline supplies expand, enough momentum in market prices remains that additional pump price increases may be expected in the coming weeks. Nevertheless, the introduction of additional gasoline supplies in response to today's high prices is likely to bring average prices down somewhat over the course of the summer. For the summer of 2001 as a whole, the average retail price of regular gasoline will probably be in the range of \$1.50-\$1.65 per gallon. This compares to an observed average of \$1.53 per gallon last summer. The peak monthly price this summer could rival or even exceed last year's peak, which was a monthly average of \$1.63 per gallon in June. These prices always vary widely by region due to differences in environmental restrictions and different levels of local taxes. For example, prices on the West coast are typically \$0.10 - \$0.30 per gallon above those in the South for these reasons. Any unanticipated supply problems, such as those that occurred in the Midwest last year, could cause even wider variations in prices for short periods of time (Figure 3).

Stocks of motor gasoline are currently at low levels. As of April 20, U.S. total stocks of gasoline were at 194 million barrels compared to 201 million barrels one year earlier. We project that stock levels of gasoline will remain tight through the spring and much of the summer. By the end of the summer and throughout the next year, we project gasoline stocks will return to within the low end of the average range (Figure 4). Gasoline stocks are relatively low in all regions of the country. In the Midwest, the motor gasoline stock situation is similar to that which prevailed this time last year, a condition that contributed to dramatic surges in prices for the region. As of April 20, gasoline stocks in the Midwest totaled 46.4 million barrels compared to 47.9 million barrels one year earlier. The current high prices are a reflection of this. However, it should be noted that supplies of gasoline can come from other U.S. regions and from abroad as market forces respond to these situations fairly rapidly as they did last year.

Refinery problems can have some significant impacts on prices for gasoline and other petroleum products. In the past, damage to refineries from fires or explosions has affected supply enough to contribute noticeably to or exacerbate price runups in California and other areas. Recently, a fire at a Los Angeles refinery owned by Tosco, the largest independent refiner in the United States, closed a coker unit in its 130,000 barrel-a-day Los Angeles Carson refinery. This serves as a reminder that things can and do go wrong in the refining industry. Fortunately, an adjacent plant also owned by Tosco was not damaged by the blaze, and apparently the damaged unit is not likely to strongly affect gasoline production or prices in California.

Diesel Fuel Oil. Diesel fuel oil prices have come down from their recent peak of over \$1.60 per

gallon seen last fall. Retail prices are currently in the \$1.40 per gallon range, but are creeping up with the rise in crude oil prices. It should be noted that off-highway use of diesel fuel oil for farming is exempt from Federal diesel taxes of 24.4 cents per gallon and most state taxes, averaging an additional 20 cents per gallon. Due to the relatively warm weather in the Northeast during the last half of January and parts of February and distillate fuel production that was several hundred thousand barrels per day more than last year's level, stock levels have remained fairly steady over the past several months, though now appear to be dipping slightly. Last February, for the first time since November 1999, U.S. distillate stocks fell within the normal range. With crude oil prices expected to be lower in 2001 than in 2000, diesel fuel oil prices are likely to remain below \$1.50 per gallon through 2002 (Figure 5).

Distillate fuel oil stocks are currently at the low end of the average range for the U.S. as a whole. Therefore, we do not expect to see the same price pressure this driving season as we may experience with motor gasoline. As of April 20, U.S. total stocks of distillate fuel oil totaled 102 million barrels compared to 94 million barrels one year earlier. We project that stock levels of this fuel will remain within the low end of the average range through the spring and summer (Figure 6). In the Midwest, the distillate fuel oil stock situation is somewhat tighter than for the U.S. as a whole. EIA's weekly petroleum survey for the week ending April 20 shows that Midwest distillate stocks totaled 27.8 million barrels compared to 26.5 million barrels one year earlier.

Propane. The price of propane is heavily tied to the price of natural gas. Propane prices peaked last January when natural gas prices were at record highs. The spot price of propane has been heading back down recently and this should translate into lower prices for end-users. However, inventories of propane are currently at the very low end of the average range for the U.S. and are below the average range for the Midwest, resulting in upward price pressure. Moreover, our forecast calls for relatively high natural gas prices through the end of 2002. Thus, the price of propane, in our view, is expected to remain relatively high over the next 20 months. Weather will also affect the price. The amount of rain and the length of the crop-drying season, particularly in the Midwest will also influence propane prices.

Ethanol. EIA does not forecast fuel ethanol prices. However, we can make some general observations about the ethanol market outlook. Ethanol will continue to benefit from the sustained high gasoline prices. The last several months have seen record high ethanol prices and production rates. Although ethanol prices have slowly been falling from their peak in January, low inventories (2.5 million barrels at the end of February 2001, compared with 4.1 million barrels at the end of February last year) should prevent a collapse in the market.

Natural Gas. Natural gas prices began increasing last summer, primarily due to low levels of natural gas storage, with spot prices increasing more than \$4 per thousand cubic feet since late June. During the heating season from October 2000 through March 2001, the wellhead price of natural gas is currently estimated to have more than doubled from the price during the previous season, averaging about \$5.75 per thousand cubic feet. With the end of the heating season, average wellhead prices are projected to decline, averaging between \$4.20 and \$4.90 per thousand cubic feet for the spring and summer. Due to projected high levels of demand growth for natural gas, particularly for electricity generation and the industrial sector, it is highly unlikely that wellhead prices will decline to the level of \$2 per thousand cubic feet of one year ago. For 2001 as a whole, the average wellhead price is

projected to be between \$4.90 and \$5.45 per thousand cubic feet, compared to an annual average of about \$3.62 per thousand cubic feet in 2000. This translates into an expected average cost of gas delivered to industrial (including agricultural) users of between \$5.50 and \$6.00 per thousand cubic feet, compared to an average of \$4.40 in 2000 and \$3.00 in 1999 (Figure 7). However, hot summer weather in regions with high levels of natural gas-fired electricity generation could reduce storage injections for next year's heating season and lead to higher price increases next fall. In 2002, we expect the storage situation to improve somewhat with increases in production and imports, resulting in perhaps a 5- to 10-percent decline in average prices. Domestic natural gas production for 2001 and 2002 is expected to rise as production responds to the high rates of drilling experienced over the past year. In 2000, drilling for natural gas in the United States increased by 45 percent over the 1999 level of 10,500 wells, in response to a 66-percent increase in the average natural gas wellhead price from 1999 to 2000. Production is estimated to have risen by 3.5 percent in 2000 and is projected to increase by rates of 3.0 percent in 2001 and 2.5 percent in 2002.

Electricity. Electricity demand is expected to grow at a rate of about 2.3 percent in 2001 and 2.1 percent in 2002, compared to an estimated growth rate of 3.6 percent between 1999 and 2000. Slower growth is expected in part due to slower projected economic growth. Electricity demand for the winter just past is estimated to have been 4.8 percent higher than the previous winter, due to higher residential and commercial demand and the cold temperatures in November and December. Natural gas deliverability problems in California have helped to increase natural gas prices and have frequently caused interruptible customers, including electricity generators, to be cut off in that State. The current situation in California is characterized by low natural gas storage, natural gas pipeline bottlenecks, high electricity demand, and low availability of hydropower resources, combined with no significant capacity additions in the last ten years. In addition, the San Onofre 3 nuclear unit is currently offline due to a fire in early February and may not return to service for several months. Nationally, the average residential price of electricity in the United States is projected to increase only slightly from 8.2 cents per kilowatt-hour in 2000 to about 8.4 cents per kilowatt-hour in 2002, largely due to increased fuel costs.

Conclusion. In the near term, we expect crude oil and petroleum prices to remain high and possibly move to slightly higher average levels through 2001 and 2002. National average retail gasoline prices have moved up sharply since last month (pump prices rose 18 cents per gallon since April 2, reaching \$1.62 per gallon on April 23). Overall, stock levels of both petroleum and natural gas remain tight. Although distillate fuel inventories are in reasonably good shape at this point, gasoline stocks remain tight (approximately 9 percent below normal as of April 20). This relatively tight stock situation can be expected to increase the volatility in prices relative to the situation that existed as recently as two years ago. Over this period, continuing growth in the U.S. economy is expected to stimulate more energy demand, with fossil fuels remaining the dominant source of energy. As a result, our dependence on foreign sources of petroleum is expected to increase and domestic natural gas production and natural gas imports are expected to grow significantly.

Thank you, Mr. Chairman and members of the Committee. I will be happy to answer any questions you may have.